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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/543,767	04/05/2000	Yasuhiro Sato	00FN006US	6702

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SUITE 200  
VIENNA, VA 22182-3817

EXAMINER

CHOWDHURY, TARIFUR RASHID

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 03/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/543,767

Applicant(s)

SATO, YASUHIRO

Examiner

Tarifur R Chowdhury

Art Unit

2871



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01/06/04.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 5-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 5-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 April 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1, 5-7 and 10 are rejected under 35 U.S.C. 103(a) as being obvious over Kato et al., (Kato), USPAT 6,654,078.**

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned

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by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(I)(1) and § 706.02(I)(2).

Kato discloses (col. 18, line 35 – col. 19, line 48) and shows in Figs. 5 and 7, a liquid crystal display comprising:

- a liquid crystal display panel (10) held between an upper frame (30) and a lower frame (20), the upper frame having a display window;

wherein the upper frame and the lower frame are integrally molded such that the upper and the lower frames are continuously formed of a plastic (resin) material and are separated by a U-shaped portion (Fig. 7); and each of the upper and the lower frames comprising a plurality of stepped protrusions (20a, 30a) (Fig. 5).

Therefore, since the method of manufacturing the device merely recites of forming each element and each element must be formed to make the device, the method of manufacturing would have been obvious in view of the device disclosed by Kato.

Kato differs from the claimed invention because he does not explicitly disclose that the frames are vacuum formed of resin material.

Toshiya discloses a liquid crystal display device wherein the frame is vacuum formed of resin material. Toshiya also discloses that when the frames are vacuum formed of resin material, it is possible to obtain a small-sized, thin and durable liquid crystal display device (abstract).

Toshiya is evidence that ordinary workers in the art of liquid crystal would find a reason, suggestion or motivation to use frames that are vacuum formed of resin material.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the device of Kato such that forming the frames of resin material obtained by vacuum molding so that a display device of small-sized, thin and durable is obtained, as per the teachings of Toshiya.

Accordingly, claim 5 would have been obvious.

As to claim 1, even though Kato does not explicitly disclose that the first and second stepped protrusions are formed to differ from each other in a protruding direction, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to form the first and second stepped protrusion such that they differ from each other in protruding direction so that the two frames are attached strongly and thus to obtain a secured device.

As to claim 6, screen-printing a conductive pattern on either of the frame of a liquid crystal display is common and known in the art and thus would have been obvious to provide a source for electrical connection between the frames and the circuit.

As to claim 7, it is clear from Fig. 7 of Kato that the upper frame comprises a thickness the same as the lower frame, the thickness being same as the U-shaped portion.

As to claim 10, employing an antistatic agent to reduce electrification is common and known in the art and thus would have been obvious.

2. **Claims 8, 9 and 11-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato as applied to claims 1, 5-7 and 10 above and in view of Hashimoto, USPAT 5,442,470.**

3. Kato discloses all the limitations of the claimed invention except that the upper frame and the lower frame are coupled to each other via foldable U-shaped portion.

Hashimoto discloses a liquid crystal display device wherein the display panel wherein the display panel and the circuit boards are attached via a foldable U-shaped portion (Fig. 2). Hashimoto also discloses that by attaching two frames by a foldable U-shaped portion it is possible to uniformly distribute stresses and thus obtain a display device greatly improved both in resistance to vibration and to impact. Hashimoto also discloses that such a configuration reduce the overall weight of the apparatus (col. 2, lines 65-68, col. 3, lines 1-4 and 17-26).

Hashimoto is evidence that ordinary workers in the art of liquid crystal would find a reason, suggestion or motivation to use a foldable U-shaped portion.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the display of Sasuga such that attaching the upper frame and the lower frame with a foldable U-shaped portion so that a display device greatly improved both in resistance to vibration and to impact is obtained as well as the overall weight is reduced, as per the teachings of Hashimoto.

Accordingly, claims 8, 9, 11, 13, 14, 17 and 18 would have been obvious.

As to claim 12, Kato clearly shows in Figs. 5 and 7 that a surface of the upper frame portion is aligned with a surface of the lower frame portion.

As to claims 15, 16 and 19, Kato also shows that the U-shaped portion is arranged at near a center of the foldable frame and that the U-shaped portion allows 180 degrees folding (Fig. 7).

***Response to Arguments***

4. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tarifur R Chowdhury whose telephone number is (571) 272-2287. The examiner can normally be reached on M-Th (6:30-5:00) Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (571) 272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TRC  
March 16, 2004

  
TARIFUR R. CHOWDHURY  
PRIMARY EXAMINER